

AMENDMENTS

In the Claims:

1. (Currently Amended) A hip prosthesis, comprising:
a shaft which is configured to be anchored in a medullary canal of a femur and [[has]]
includes a distal portion which is configured to be anchored in a diaphysis,
the shaft having a core cross-section which tapers toward a distal end, the shaft core cross-section being substantially rectangular with an axis ratio of at least 1.5:1 at a distance of
approximately 1 cm from the distal end,
the distal portion of the shaft extending from a proximal start of the shaft to the distal end;
wherein the distal portion of the shaft comprises a plurality of longitudinal ribs protruding from the shaft and arranged on a lateral side and a medial side of the distal portion of the shaft, the plurality of longitudinal ribs including at least two edge ribs arranged on lateral corners of the rectangular cross-section of the shaft near the distal end,
wherein a height of the plurality of ribs continuously increases relative to the shaft core surface from [[a]] the proximal start of the distal portion to the distal end of the shaft, whereas a height of the plurality of ribs does not increase relative to a longitudinal axis of the shaft from the proximal start of the distal portion to the distal end of the shaft.
2. (Previously Presented) The prosthesis as claimed in claim 1, further comprising a side rib provided between the two edge ribs located on the lateral corners that protrudes from the prosthesis by no more than 2 mm further laterally from the shaft than the two ribs located on the lateral corners.
3. (Previously Presented) The prosthesis as claimed in claim 2, further comprising two additional edge ribs provided on medial corners of the rectangular cross-section of the shaft.
4. (Previously Presented) The prosthesis as claimed in claim 3 further comprising an additional side rib provided between one of the edge ribs provided on the lateral corners and one of

the additional edge ribs located on the medial corners that protrudes by no more than 2 mm in a ventral or dorsal direction from the shaft than the respective edge rib and addition rib.

5. (Previously Presented) The prosthesis as claimed in claim 1 or 2, wherein a shaft core cross-section at the proximal end is substantially rectangular with an axis ratio of at least 1.4:1.

6. (Previously Presented) The prosthesis as claimed in claim 1 or 2, wherein the ribs have roughened surfaces.

7. (Previously Presented) The prosthesis as claimed in claim 1 or 2, wherein a tapering of the core cross-section along a length of at least 4 cm is on average at least $8 \text{ mm}^2/\text{cm}$ of length.

8. (Previously Presented) The prosthesis as claimed in claim 1 or 2, wherein a reduction in cross-sectional dimension in a latero-medial direction of the distal shaft portion along a length of at least 4 cm of the distal shaft portion is on average at least $0.5 \text{ mm}/\text{cm}$ of length.

9. (Previously Presented) The prosthesis as claimed in claim 1 or 2, wherein the rib height increases from the proximal end of the distal portion to the distal end of the distal portion from less than 0.5 mm to 0.5 to 1.5 mm.

10. (Previously Presented) The prosthesis as claimed in claim 7, wherein a tapering of the core cross-section along a length of at least 4 cm is on average over $10 \text{ mm}^2/\text{cm}$ of length.

11. (Previously Presented) The prosthesis as claimed in claim 8, wherein a reduction in cross-sectional dimension in a latero-medial direction of the distal shaft portion along a length of at least 4 cm of the distal shaft portion is on average more than $0.8 \text{ mm}/\text{cm}$ of length.